Unified San Diego
County Emergency
Services Organization
And
County Of San Diego

Operational Area Emergency Plan

**ANNEX H** 

**Environmental Health Operations** 

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## Unified San Diego County Emergency Services Organization ANNEX H

#### **Environmental Health Operations**

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### ANNEX H ENVIRONMENTAL HEALTH OPERATIONS

#### I. General

The Environmental Health Operations Annex to the San Diego County Operational Area Emergency Plan describes the basic concepts, policies and procedures for providing environmental health services in the event of a disaster. This Annex serves as the unifying environmental health document for the County of San Diego and the cities in the County as authorized by the Emergency Services Agreement.

Note: This Annex is not applicable for incidents at the San Onofre Nuclear Generating Station (SONGS). For all events at SONGS, refer to the San Diego County Nuclear Power Plant Emergency Response Plan.

#### **Purpose**

To establish emergency environmental health operations, assign responsibilities, and provide actions and responses to environmental health problems associated with disasters.

#### **Goal and Objectives**

The overall goal of environmental health operations during a disaster is to:

Minimize loss of life and human suffering, prevent disease, and promote optimum health by controlling environmental factors.

The overall objectives of environmental health operations during a disaster are to:

- 1. Provide leadership and guidance in all environmental health-related incidents.
- Provide environmental health protection measures.
- 3. Provide guidance in food handling, mass feeding and sanitation in emergency facilities.
- 4. Inspect and advise on general sanitation matters.
- 5. Coordinate environmental health-related activities among other local public and private response agencies and groups.
- 6. Assist with damage assessments.

#### **Concept of Operations**

There are three levels of Emergency Operational Center (EOC) activation during a disaster. These levels are based on the nature and severity of the situation and the availability of resources. These three levels are described in the Basic Plan.

#### Plan Activation and Termination

Activation and termination of this Annex shall be by the direction of (1) the County's Chief Administrative Officer (CAO) in that capacity, or as Emergency Services Coordinator of the Unified San Diego County Emergency Services Organization; or (2) a designated Assistant CAO; or (3) the Director, Office of Emergency Services or designated representative; or (4) the Director, Department of Environmental Health or designated representative.

Upon activation, the DEH Director determines the extent of environmental health services needed for response to the disaster and activates the DEH Departmental Operations Center (DOC). The DEH-DOC will coordinate all environmental activities for DEH and relay the activities to the Operational Area EOC (OAEOC) environmental health desk.

#### **II. Organization**

#### **Operational Area EOC**

The San Diego County EOC serves as the OA EOC and performs the same function as the city EOCs, with the Chief Administrative Officer (CAO) serving as Director of Emergency Services. The CAO also functions as the Emergency Services Coordinator for the Operational Area.

The Operational Area EOC is located at the County Operations Center, and is used as the central point for resource acquisition and allocation, as well as coordination. The Environmental Health Section of the EOC is normally activated when the EOC is activated at a level 2 or 3. It is staffed by pre-designated environmental health personnel who will coordinate the environmental health response for the Operational Area. The EOC environmental health staff serve as advisors to the Emergency Services Coordinator, the Management Section, coordinate all activities with the DOC, and make decisions about resource allocation, priorities and other public environmental health matters.

- Emergency Services Coordinator Directs or coordinates the Emergency Services
   Organization and the emergency management program. In a disaster located entirely
   within the County unincorporated area, the CAO is the Director of emergency
   operations. In a disaster involving more than one jurisdiction, the CAO serves as the
   Coordinator of emergency operations.
- 2. Director, Department of Environmental Health (DEH) Reports to the CAO and is primarily responsible for providing and coordinating the provision of countywide environmental health and sanitation services. The Director of DEH, identifies environmental health problems, and coordinates activities with public works agencies, fire departments, and utilities (sewage, water, etc.). The Director advises the Emergency Services Coordinator of the need for mutual aid.
- 3. Assistant Director, Department of Environmental Health (DEH) Reports to the Director of Environmental Health and is primarily responsible for coordinating the oversight of environmental health services. The Assistant Director acts for the Director when necessary, identifies environmental health problems, and directs and

coordinates the Division Chiefs in resource allocation and service delivery. Additionally, the Assistant Director coordinates activities with public works agencies, public health, fire departments, and other public service providers.

#### **City Emergency Operations Centers (EOC)**

Each city has a central facility designated as an EOC. From the EOC, disaster operations are directed or coordinated. It is activated when a disaster occurs and is staffed by city employees from departments with emergency responsibilities, as well as liaison representatives from other agencies and jurisdictions. City EOC's communicate/coordinate their actions with the OAEOC during disasters.

City plans may call for an environmental health liaison representative to be present when their EOC is activated. In each city, the Mayor, City Manager or their designee is designated as Director of Emergency Services by ordinance and directs or delegates emergency operations from the EOC.

#### **DEH Departmental Operations Center (DOC)**

The Department of Environmental Health Departmental Operations Center (DEH-DOC) supports the OAEOC. The DEH-DOC is staffed based on the level of emergency. The staff at the DEH-DOC have the following roles or responsibilities:

#### **Management section - DOC Manager.**

- A. To activate the DEH-DOC at the direction of the Director of Environmental Health and oversee all activities of the DEH-DOC to ensure environmental priorities are being addressed and completed.
- B. Provide briefing to the DEH-DOC.
- C. Communicate with the OAEOC environmental health duty desk.

#### **Public Information Officer (PIO)**

- A. Formulate and release approved information about the incident that could be released to the news media and other agencies.
- B. Works in conjunction with the Joint Information Center operating through the OAEOC.

#### **Safety Officer**

- A. To develop and recommend measures for assuring personnel safety, accountability and to assess and/or anticipate hazardous and unsafe situations.
- B. Responsible for developing DEH safety plans specific to the disaster.

#### **Operations Section Chief**

A. Supervise the environmental assessment teams to ensure the operational objectives are achieved.

#### **Planning Section Chief**

A. Collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to understand the current situation, predict probable course of incident events, prepare alternative strategies and control operations for the incident.

#### Situation Status

A. Monitor the information about the development of the incident and status of resources.

#### **Geographic Information Systems (GIS)**

A. Generate situation maps for planning and operations use.

#### **Logistics Section Chief**

- A. Manage those units responsible for power, equipment, facilities and personal needs in support of the incident and DOC needs.
- B. Coordinates activities and resource requests with the Logistics section of the OAEOC.

#### **Finance Section Chief**

- A. All financial and cost analysis aspects of the disaster, payments and the reimbursement efforts.
- B. Issue activity codes to track payroll records of DEH staff operating in support of the emergency.

#### III. Roles And Responsibilities

#### San Diego County Department of Environmental Health

- 1. Writes and updates the Environmental Health Annex H and any other emergency environmental health plans and procedures.
- 2. Coordinates environmental health disaster operations within the Operational Area.
- 3. Develops and maintains a capability for identifying environmental health resources within the Operational Area.
- 4. Coordinates all environmental health related activities among other local public and private response agencies or groups, as well as state and federal agencies.
- Requests and responds to requests from the Regional Disaster Medical Health
  Coordinator and the Health and Human Services Agency (HHSA) DOC for disaster
  assistance.

#### **Environmental Health**

#### 1. All Divisions

- A. Prepare Standard Operating Procedures (SOPs) and functional checklists for environmental health response to a disaster, including a system for automatic reporting of pre-designated personnel to assigned disaster posts. This information is maintained in the DEH Disaster Preparedness Plan (DPP).
- B. Train personnel and alternates.

#### 2. Community Health Division

#### A. Vector Control Program

- Establishes methods and procedures for vector control activities to include the control of flies, mosquitoes, human body pests, and ectoparasites.
- 2. Develops and supervises methods and procedures for control of rodents.
- Coordinates disposal/removal of dead animal activities with Animal Control services to minimize vectors such as flies ectoparasites and rodents.
- 4. Conducts surveys and surveillance to determine the potential for vector-borne disease transmission and control measures needed to prevent and control vectors.

#### B. Vector Borne Disease Laboratory

- 1. Test submitted specimens for vector-borne zoonotic diseases.
- 2. Communicate diagnostic test result information to vector control and public health staff.
- 3. Implement animal quarantine when necessary to control animal reservoirs of zoonotic diseases.
- 4. Develop disease prevention recommendations and strategies as they pertain to animal vectors and animal disease reservoirs.
- 5. Assist with the coordination of the safe disposal of contagious animals and vectors.
- 6. Train staff in biology, risks and personal protection from new and emerging vector-borne pathogens.

#### C. Radiological Health Program

- 1. The Senior Radiological Health Physicist coordinates actions with the California Radiological Health Branch (RHB).
- 2. Advises on radioactive contamination of the environment and the population.

- 3. Assists with the coordination of radiation monitoring teams as well as decontamination activities.
- 4. Advises on control measures and recovery efforts from radiological incidents.
- Advises the DEH Director of the need for administration of potassium iodide (KI) or other radiation preventative measures for emergency workers. The Director relays those recommendations to the County Public Health Officer.

**NOTE**: Appendix II discusses emergency response to various radiological incidents.

#### D. Occupational Health Program

- 1. Assist in the evaluation of County facilities for safe occupancy following a disaster.
- 2. Assist the Department of General Services with ventilation issues in County buildings during/following a disaster.
- 3. Conduct air monitoring (for asbestos, lead, mold, smoke/dust etc.) as needed.
- 4. Provide recommendations to County employees regarding personal protective equipment.
- 5. Provide health and safety training to County employees.
- 6. Assist Department of Human Resources with worker's compensation claims investigations relating to the disaster.
- 7. Assist Departments with employee protection issues for pandemic and other biological hazards.

#### E. Solid Waste Local Enforcement Agency (LEA)

- Approves emergency waiver requirements of State standards and permit conditions for solid waste operators to accept disaster-related solid waste.
- Processes and issues approvals for temporary Emergency Transfer/Processing Operations and Emergency Construction and Demolition/Inert Debris Processing Operations.
- 3. Monitors the storage, handling, and disposal of solid waste within the LEA's jurisdiction.
- 4. Inspects the disposal of special wastes, such as food waste generated from mass feeding centers and quarantines, and human waste generated from lack of sanitary facilities. The proper collection and disposal of human waste from emergency toilet facilities may have to be disposed of at sanitary landfills or specially prepared and selected sites, including excavations or fill and cover sites if the sewer treatment facilities are not in operation.

5. Monitors the potential migration of landfill gas due to damaged gas control systems or emergency construction activities adjacent to landfills.

#### 3. Food and Housing Division

- A. Provides information on food, pool, and housing safety including the salvaging and protection of perishable foods under emergency conditions.
- B. Conducts food-borne and water-borne illness outbreak investigations in coordination with HHSA.
- C. Inspects and advises on general food safety for impacted permitted food facilities, mass feeding centers, and temporary emergency shelters, including damaged and spoiled food, and food from approved sources.
- D. Assists with conducting assessments of emergency shelters and advises on health and safety hazards related to food, sanitation, and housing.
- E. Assists building departments with the damage assessment of permitted multi-family dwelling units in areas where DEH is the housing authority.
- F. Conducts damage assessments to identify impacted public swimming pools that may pose an imminent safety threat.
- G. Provides guidance to permitted food facilities, mass feeding centers, and emergency shelters that may be impacted by boil water orders, power outages, and water outages.

#### 4. Hazardous Materials Division

- A. Conducts damage assessments to identify any hazardous materials, including biological substances released at permitted facilities due to a natural disaster.
- B. Evaluates the risks that the hazardous substances may pose to the general public and environment if released.
- C. Advises on mitigation measures necessary to modify or reduce adverse conditions effecting public or environmental health.
- D. Coordinates environmental health mitigation and response activities with other public and private response organizations. Federal funding for clean-up. Reporting and funding for clean-up. Reporting and access to state and federal funding/stabilization
- E. Provides assessment of underground storage tank systems to determine the integrity of the systems after a natural disaster.
- F. Coordinates a joint response within the operational area to mitigate and control chemical, biological and radiological emergencies.

#### 5. Land & Water Quality Division

#### A. General

- Determines the risks and hazards for the disposal of sewage where the public may come in contact or where it may contaminate drinking water supplies.
- 2. Establishes quarantine areas in the event of sewage contamination.
- 3. Evaluates sources of water for use as a potable water supply. Issues boiled water orders as needed for compromised small water systems.
- 4. Confirms the sanitary transportation and treatment of water to be used as a potable water supply and verifies that the water is potable prior to consumption.
- 5. Coordinates the provision of temporary measures for the collection of and the sanitary disposal of human waste and other refuse.
- 6. Assists building departments with the damage assessment of residential family dwelling units in county unincorporated areas.
- 7. Enforces Health and Safety code with regards to substandard housing within the Unincorporated County and contract cities.

#### B. Site Assessment

- 1. Conducts environmental surveys to determine the extent of releases from underground storage tanks and other chemical contamination sources.
- 2. Evaluates the risks posed to public health and water resources from hazardous substance releases.
- 3. Advises on mitigation measures necessary to mitigate hazardous substance releases from abandoned or contaminated sites.
- 4. Coordinates site assessment and mitigation activities with other public agencies and private entities.

#### Office of Emergency Services (OES)

- 1. Assists with environmental health disaster planning and training.
- Coordinates, through the Logistics Section, efforts to obtain resources both within the county and out of the county, including supplies and logistical support.
- 3. Requests and obtains, via the Logistics Section, military assistance in accordance with established protocols and procedures.
- 4. Activates, manages, and staffs the Operational Area EOC.
- 5. Assists with recovery efforts, particularly in obtaining state and federal reimbursement funds.

#### State (see Attachment A)

- 1. Responds to requests for resources from the Operational Area.
- The Director, State Department of Health Services, serves as the State Director of Public Health and has the overall responsibility of coordinating statewide disaster environmental health operations and support requirements.

#### Federal (see Attachment B)

- 1. Public Health Service
- A. Assists state and local communities in taking protective and remedial measures for ensuring sanitary food and potable water supplies; adequate sanitary systems; rodent, insect, and pest control; care of sick and injured; and control of communicable disease.
- B. Assigns professional and technical personnel to augment state and local forces.
- 2. Food and Drug Administration
- A. Works with state and local governments in establishing environmental health controls through the decontamination or condemnation of contaminated food and drugs.

#### **IV. Functions**

#### **Food Safety**

Due to damage to restaurants, grocery stores, and residences, mass feeding centers and/or emergency shelters will be used to maximum capacity. Some food facilities may attempt to continue to operate following an emergency. Maintaining food safety at these facilities will be a high priority. Several aspects of food safety will require monitoring to prevent the food-borne illnesses. These functions may include:

- 1. Providing guidance on food safety.
- 2. Surveying the food delivery system to prevent food contamination or spoilage.
- 3. Conducting inspections as needed to ensure food is prepared and served in a manner to minimize the risks of food-borne illnesses.
- 4. Monitoring and investigation of feeding centers and shelters for illnesses and outbreaks.

- 5. Advising permitted and non permitted food facilities on required food safety modifications
- 6. Providing assistance to food facilities with continuing to operate under emergency conditions will be advised of any required food safety as needed.

#### Sanitation

Several aspects of waste disposal and solid waste management will need supervision to prevent the spread of disease. These may include:

- 1. Inspection of pumping trucks used to remove liquid wastes.
- 2. Inspection of sewage disposal units including community trench latrines, pit privies, and mobile latrines or chemical toilets.
- 3. Inspections of organic and inorganic waste at mass feeding and care facilities
- 4. Inspection to ensure proper disposal of collected waste in an approved landfill or by burial, incineration or open dumping as a last resort.

#### **Vector Control**

Vectors are organisms that transmit disease or cause annoyance. Vectors are present in virtually every environment, and at times are involved in the transmission of serious diseases, particularly under crowded or poor sanitary conditions. Vector Control Program functions during disasters may include:

- Mapping of vector sources to determine the extent of infestations, potential for disease occurrence, level of nuisance to be eliminated, and amount of damage to be expected.
- 2. Identification, control and elimination of mosquito and fly breeding sources and rodent and cockroach infestations.
- 3. Implementation of a vector awareness education program to enhance public cooperation.

#### **Vector-Borne Disease Diagnosis**

During a disaster, the Vector-Borne Disease Diagnostic Laboratory conducts the following functions as necessary:

- 1. Test insect vectors and animal disease reservoirs for zoonotic pathogens.
- 2. Implement or develop new diagnostic tests for emerging vector borne diseases.

- 3. Monitor status of emerging and reemerging vector borne diseases at local, state, federal and international levels.
- 4. Coordinate diagnostic responses with appropriate local, state and federal agencies (Public Health, Centers for Disease Control and Prevention).
- 5. Assist with epidemiologic investigation of vector borne disease outbreaks in vectors, animals or people.

#### **Emergency Water Supply**

During emergency conditions, most major water districts have emergency and mutual aid agreements to try to supply water to the most critical needs. Where potable water sources may be limited, Environmental Health functions to:

- Provide proper health and disinfection information when alternate water resources are used, such as trucked-in water, use of agricultural wells, streams, pools and ponds.
- 2. Provide proper health and disinfection information for potable water sources at Field Treatment Sites, mass feeding and housing and shelter areas.
- 3. Assist the Public Health Laboratory by sampling water supplies to test for the presence of Coliform bacteria or other suspected contaminants.

#### **Hazardous Materials Division**

The Hazardous Materials Division (HMD) of the Department of Environmental Health is trained and equipped to respond to hazardous materials incidents associated with a chemical, biological or radiological emergency. Through an agreement between the Unified Disaster Council members, HMD and the City of San Diego Fire-Rescue Department, the Joint Hazardous Incident Response Team (HIRT) was formed to provide a regional response program, serving the San Diego County Operational Area.

Upon activation, a responding unit will proceed to the incident site and coordinate with other onsite agencies under the operations section.

HMD will assist the designated Incident Commander as requested and will provide the following services as needed:

- 1. Conduct environmental surveys to identify the hazardous materials and wastes.
- Continuously monitor the status of the incident to determine the population at risk, the effect on environmentally sensitive areas, and the impact to economically sensitive areas.
- 3. Conduct field sampling to determine the extent of contamination in soil, water, or air.
- 4. Conduct on-site screening for identification of chemical unknowns.

- 5. When feasible, mitigate and stabilize a hazardous materials release to protect the health and safety of the population around the incident.
- 6. Provide laboratory analysis of unidentified hazardous materials that may adversely affect individuals, the general public, or the environment, on an as needed basis.
- 7. Provide health and safety information to all response agencies and act as an on-site safety officer as necessary.
- 8. Assist the Incident Commander in determining the necessity for area evacuation and/or post incident site entry.
- 9. Make recommendations to the Incident Commander and other private or public response agencies concerning methods to be used in spill control, cleanup and site restoration.
- 10. Evaluate the adequacy of final site clean up and help coordinate the removal of the hazardous materials.
- 11. As necessary, assist the Incident Commander in obtaining outside financial aide and other resources from State and/or Federal agencies to help in any environmental cleanup in the absence of a responsible party.
- 12. Provide technical information concerning the characteristics of released or spilled substances to the medical and other response agencies having need of such information.

**NOTE**: Responses to a significant oil spill impacting, or with the potential to impact, the San Diego Operational Area are addressed in the San Diego County Operational Area Oil Spill Contingency Element of the Area Hazardous Materials Plan.

#### **Land and Water Quality Division**

The Land & Water Quality Division (LWQD) of the Department of Environmental Health regulates water and wastewater issues, mobile home parks, substandard housing, monitoring and drinking water wells, and onsite wastewater disposal systems. In the event of an emergency, LWQD staff will be able to expedite the review of emergency plans for the repair or reconstruction of private drinking water wells, small water system wells and onsite wastewater disposal systems.

LWQD will assist other departments and divisions in the following ways:

- Provide technical information concerning the characteristics of released or spilled substances from underground storage tanks and other facilities containing hazardous substances and evaluate remediation strategies and the final site cleanup.
- 2. Expedite the review of plans for the repair of onsite wastewater disposal systems and drinking and monitoring wells.
- 3. Assist in the inspection of mobile home parks in the unincorporated areas and contract cities for safety and habitability.

- 4. Assist with conducting environmental surveys of permitted and un-permitted establishments for releases of hazardous substances, septic wastes, and non-potable drinking water supplies.
- Assist in the inspection of tenant occupied structures to determine if substandard conditions exist.

#### **Radiological Health Protection**

During a disaster involving a radiological (nuclear) incident the DEH-HMD's Incident Response Team (HIRT) and the CHD Senior Health Physicist will coordinate with the County of San Diego's Public Health Officer and assist as follows:

- 1. Monitoring radiological exposure and environmental contamination.
- 2. Coordinate with other local, state, and federal monitoring teams
- 3. Decontamination of personnel and property
- 4. Advise on the need to administer potassium iodide (KI) or other radioactive preventative measures.

**NOTE:** Additional information regarding the response to radiological incidents is found in Appendix II.

#### **Local Enforcement Agency**

The County of San Diego, Solid Waste Local Enforcement Agency (LEA) regulates solid waste issues in the County before and after disasters that impact solid waste handling and disposal. The California Department of Resources Recycling and Recovery can/has adopted regulations for the LEA to provide the following:

- 1. Maximize the availability of handling, processing, transportation, storage, and disposal capacity through the period of increased need during emergencies.
- 2. Provide trained staff to monitor any potential public health and safety issues related to the migration of landfill gas.
- Coordinate issues and environmental concerns related to solid waste and disposal sites with other regulatory agencies, the operator/owners, and the community. These issues may include odors, noise, dust, extended operating hours and changes in permitted tonnages at disposal sites and transfer stations, site security, vectors, and landfill gas.
- 4. Investigate and monitor solid waste issues in the general community related to commercial storage and illegal solid waste facilities and operations.

#### **Occupational Health Section**

- 1. Assists the Department of General Services in the evaluation of County facilities for safe occupancy following a disaster,
- 2. Assesses ventilation issues in County buildings,
- 3. Conducts air sampling for asbestos, lead, mold, smoke and dust, etc. as necessary,
- 4. Provide recommendations to County employees regarding personal protective equipment,
- 5. Assist the Department of Human Resources with worker's compensation claim investigations relating to the disaster,
- 6. Assist other Departments of the County of San Diego with employee protection issues for pandemic and other biological hazards.

#### Resources

The Department of Environmental Health develops and maintains a capability for identifying specific resources that are helpful to DEH within the Operational Area. Additionally, the Department of Environmental Health, through the Logistics Section of the Operational Area EOC, is responsible for the procurement, allocation and distribution of all environmental resources required to support environmental health operations.

Environmental Health Disaster Preparedness Plan (EHDPP) includes information, Standard Operating Procedures and checklists to facilitate a disaster environmental health response. The following information is included in the plan:

- Notification and Recall Lists of Environmental Health Personnel
- Environmental Health Emergency Telephone Numbers
- Designated Amateur Radio Operators
- Hazardous Material Haulers and other Emergency Transportation Resources
- Septic Tank Pumpers
- Emergency Chemical Toilet and Portable Restroom Suppliers
- Location of Emergency Water Supplies
- National Guard Resources (Public Health specific)
- Water Purveyors
- List of Analytical Laboratories
- Pesticide Emergencies Reference List
- Miscellaneous Support Agencies
- Chemical and Biological Sampling Devices

For Radiological Health Protection, the following information is available:

- Members of Radiation Monitoring Teams
- Location of Field Monitoring Equipment
- Location of Potassium Iodide and Issue Log Sheets
- Hospitals with capability to handle ill or injured patients contaminated with radioactive material (coordinated with the Health and Humans Services Administration of the County of San Diego)

**NOTE**: The EHDPP is maintained by the Department's Disaster Coordinator with the assistance of the Division Chiefs. The Plan can be accessed in the DEH s: drive

#### ATTACHMENT A

#### STATE RESPONSIBILITIES

The Director, State Department of Public Health, serves as State Director of Public Health and will have the overall responsibility for coordinating statewide disaster environmental health operations and support.

The following state agencies have varied capabilities and responsibilities for providing support to environmental health disaster operations.

Department of Health Services (DHS) or Department of Public Health (CDPH)

DHS is primarily responsible, under the State Director of Public Health, for the administration and coordination of a statewide disaster environmental health program. This includes coordinating, supervising, and assisting those essential services required to do the following.

- 1. Assure availability of safe drinking water.
- 2. Prevent and control communicable disease.
- 3. Provide technical assistance in the safe operation of sewage collection, treatment, and disposal systems.
- 4. Assure prevention and control of vectors, including flies, mosquitoes, and rodents.
- 5. Assure observance of health aspects in management of solid waste disposal, including proper disposal of dead animals and human remains.
- 6. Assure safe management of hazardous wastes, including handling, transportation, and disposal.
- 7. Ensure safety of emergency supplies of food and other products.
- 8. Ensure rapid restoration or replacement of facilities for processing, storing, and distributing food, and other products.
- 9. Rapidly establish measures to mitigate damage to environmental health from radiological accidents, including providing technical assistance, safety criteria for recovery, re-occupancy, and rehabilitation of contaminated areas.
- 10. Provide support to the California Air Resources Board in carrying out the public health aspects of the California Air Pollution Emergency Plan.

#### Department of Food and Agriculture

- 1. Administers programs for the control and eradication of diseases, pests or chemicals affecting animals, poultry or crops.
- 2. Provides information on the protection of human and animal food from contamination by harmful residues or chemicals.

#### California Environmental Protection Agency - Air Resources Board

- 1. Develops plans to prevent substantial endangerment to the health of persons by anticipating and preventing or abating air pollution emergencies.
- 2. Coordinates the execution of air pollution emergency plans with OAEOC and Regional Air Pollution Control Districts, State OES and other public agencies.
- 3. Coordinates the monitoring of air quality and issues bulletins consistent with public safety as required by the Department of Health Services.

California Environmental Protection Agency - State Water Resources Control Board

- 1. Ensures safe operation of sewage collection, treatment, and disposal systems.
- 2. Provides water quality advice and support in emergency operations.

California Department of Resources Recycling and Recovery (CalRecycle) [formally known as California Integrated Waste Management Board]

- 1. Ensures proper disposal of solid wastes.
- 2. Adopted regulations for LEA's to provide maximum availability for the proper disposal of solid waste during emergencies.

#### ATTACHMENT B

#### FEDERAL RESPONSIBILITIES

The Department of Health and Human Services, operating under its own statutory authority or following a Presidential Declaration of an EMERGENCY, may provide disaster environmental health services.

#### **Public Health Service**

Has the primary federal responsibility for activities associated with health hazards resulting from emergencies and will:

- Assist state and local communities in taking protective and remedial
  measures for ensuring sanitary food and potable water supplies; adequate
  sanitary systems; rodent, insect, and pest control; care of sick and injured;
  and control of communicable disease.
- Assign professional and technical personnel to augment state and local forces.

#### **Food and Drug Administration**

Works with state and local governments in establishing public health controls through the decontamination, recall, or condemnation of contaminated food and drugs.

#### **Policies and Procedures**

- 1. If local resources (both public and private) are inadequate to cope with the situation(s), required support will be requested through the Operational Area EOC to the appropriate California Emergency Management Agency (CalEMA) Mutual Aid Regional Emergency Operations Center (REOC). If the requirement cannot be met through resources available within the counties in the Region, the REOC staff or Director will request assistance from the State Operations Center (SOC) in Sacramento who will then forward the request to the California Department of Public Health for assistance.
- 2. The provision of Federal resources prior to a Presidential emergency declaration, under the authorization of the Robert T. Stafford Disaster Relief and Emergency Assistance Act 42 U.S.C. §5191-5193 (The Stafford Act), is justified where prompt action is essential for the protection of life and property. After a Presidential declaration is made, and upon instructions from the Director, Region IX, Federal Emergency Management Agency, Federal agencies will make their resources available to support local and state emergency public health and sanitation efforts.

#### **APPENDIX I-1**

#### **DEPARTMENT OF ENVIRONMENTAL HEALTH GENERAL EMERGENCY ACTION CHECKLIST RESPONSE TO A MAJOR EARTHQUAKE**

Action	Responsibility
Conduct field survey to detect damage to water and sewage systems.	DEH
Locate and check status of potable water sources	DEH

#### IF LITTLE OR NO DAMAGE IS REPORTED, PREPARE TO SUPPORT MORE HEAVILY DAMAGED JURISDICTIONS.

### IE EVTENSIVE DAMAGE IS DEPOPTED. TAKE THE FOLLOWING ACTIONS AS

IF EXTENSIVE DAMAGE IS REPORTED, TAKE THE FOLLOWING ACTIONS AS REQUIRED (Water, Sewage, Food, Housing, others		
Assist in the development of emergency community water supplies.	Land & Water Quality (LWQD)	
Provide technical information on water disinfection and storage of water supplies.	LWQD	
Coordinate with Logistics and Finance after water has been purchased to test and confirm the water is potable.	LWQD	
Supervise the development of new and repaired water systems.	LWQD	
Conduct field survey to detect damage to onsite wastewater disposal and sanitary sewer systems.	LWQD	
Direct and advise on the use of emergency chemical toilets, portable restrooms and other temporary facilities for the disposal of human wastes.	LWQD	
Direct and advise the public on the proper collection and disposal of human wastes from chemical toilets, portable restrooms, latrines, emergency toilet facilities and private homes.	LWQD	
Supervise the development of mass housing and sewage disposal facilities.	LWQD	

Provide sanitation inspection services in emergency facilities.	LWQD
Conduct inspections to ensure the proper collection and disposal for human waste for mass housing and feeding facilities.	LWQD/FHD
Provide information on food, pool, and housing safety under emergency conditions.	FHD
Conduct food-borne and water-borne illness outbreak investigations in coordination with Health and Human Services Agency (HHSA).	FHD
Inspect and advise on general food safety, for impacted permitted food facilities, mass feeding centers, and temporary emergency shelters.	FHD
Assist with conducting assessments of emergency shelters and advise on health and safety hazards related to food, sanitation, and housing.	FHD
Assist the building departments with the damage assessment of permitted multi-family dwelling units in areas where DEH is the housing authority.	FHD
Conduct damage assessments to identify impacted public swimming pools that may pose an imminent safety threat.	FHD
Provide guidance to permitted food facilities, mass feeding centers, and emergency shelters that may be impacted by boil water orders, power outages, and water outages.	FHD
Provide information on the salvaging and protection of perishable foods under emergency conditions.	FHD/LWQD
Provide mutual aid when requested.	DEH
Establish methods and procedures for control of flies, mosquitoes, human body pests, and ectoparasites.	CHD
Develop and supervise methods and procedures for control of rodents.	CHD

Conduct surveys and surveillance to determine densities, species, distribution, disease-bearing, and control measures needed to prevent/control vectors.	CHD
Supervise disposal of radioactive waste.	CHD/HMD
Supervise radiological monitoring and decontamination (if required) of evacuees housed in emergency shelters and incoming patients in medical centers.	CHD/HMD
Assess risk to public health and safety and the environment from releases of hazardous materials.	CHD/HMD
Assess risk to public health and water resources from sewage releases.	LWQD
Assess risk to the public health and water resources from damage to public and private potable water supply wells and distribution systems.	LWQD
Coordinate risk assessment activities with other responsible agencies.	HMD
Assess risk to public health and water resources from hazardous material releases.	LWQD
Coordinate site assessment and mitigation activities with other agencies and private entities.	LWQD
Approve waiver requirements based on emergency regulations adopted by the California Department of Resources Recycling and Recovery.	CHD
Review the handling and acceptance of solid waste with solid waste haulers and disposal site operators.	CHD
Monitor the storage, handling and disposal of solid waste.	CHD
Monitor the potential migration of landfill gas.	CHD
Inspect the collection, storage, land disposal of all garbage and refuse.	CHD

Assist County Departments performing damage CHD assessments with health and safety issues (e.g., personal protective equipment [PPE], asbestos, lead, sampling, etc.).

Assist Department of General Services with issues at CHD County buildings.

#### **APPENDIX I-2**

### DEPARTMENT OF ENVIRONMENTAL HEALTH EMERGENCY ACTION CHECKLIST RESPONSE TO A HAZARDOUS MATERIALS INCIDENT

<u>Action</u>	Responsibility
Coordinate with the Medical Examiner, on health problems associated with the disposition and decontamination of the dead.	HMD
PRELIMINARY ASSESSMENT	
Conduct environmental surveys to identify the hazardous materials released. Determine the population at risk and characterize the degree of hazard.	HMD
Determine if specialized monitoring and survey equipment is necessary to assess the risk.	HMD
Provide information acquired during surveys to monitor the fate of the release.	HMD
Provide risk assessment information to other agencies involved in chemical incidents.	HMD
EVALUATION/RISK ASSESSMENT	
Evaluate the risks that the hazardous substances pose to the general public and/or environment.	HMD
Continually monitor the migration of contaminates released during chemical emergency.	HMD
Determine any populations at risk.	HMD
Determine the impact to environmentally sensitive areas (i.e., endangered species and ecosystems).	HMD
Determine the impact to economically sensitive areas.	HMD

#### SAFETY/CONTROL

Make recommendations for control actions to modify or HMD reduce impact.

Provide information on cleanup techniques and HMD resources.

Can act as "site safety officer" during chemical HMD emergencies.

Make recommendations for cleanup, restoration methods, HMD and disposal of hazardous wastes.

Potentially mitigate the release to stabilize the scene and protect the public and environmental health and safety.

#### COORDINATION

Coordinate public health mitigation and response activities with other public and private response organizations.

**HMD** 

#### **APPENDIX I-3**

### DEPARTMENT OF ENVIRONMENTAL HEALTH EMERGENCY ACTION CHECKLIST RESPONSE TO IMMINENT/ACTUAL FLOODING

#### **Flooding Expected**

<u>Action</u>	Responsibility
Determine potential health hazards and establish standards for control.	DEH
Coordinates actions necessary to mitigate potential sewage releases caused by flood waters.	LWQD
Issue standby orders for self-contained chemical toilets or portable restrooms. When flooding may cause human waste disposal systems to become inoperable.	LWQD
Provides guidance and inspection of permitted food facilities, mass feeding centers, and emergency shelters.	FHD
Enlist additional personnel to handle increased vector control problems.	CHD
Identify buildings that contain hazardous materials.	HMD
Advise on mitigation and control measures. Take environmental samples to determine extent of contamination.	HMD
Flooding Occurs	
Conduct survey to detect water and sewage system damage.	LWQD
Locate and check status of potable water sources.	LWQD
Provide guidance for the disinfection of transported water. Direct and advise on the use of chemical toilets and other temporary facilities for the disposal of human waste.	LWQD
Cordon off areas where sewage effluent is present.	LWQD
Coordinate mosquito and other vector control operations.	LWQD

Advise on mitigation control and clean-up measures.	DEH
Survey underground storage tank sites to determine if tanks have floated and if releases have occurred.	LWQD
Assess risk to public health and water resources from hazardous materials releases.	HMD
Coordinate site assessment and mitigation activities with other public agencies and private entities.	LWQD
Survey landfills and evaluate damage.	CHD
Survey transfer stations and evaluate damage.	CHD
Monitor the storage, handling and disposal of solid waste.	CHD
Provides information on the salvaging and protection of perishable foods under emergency conditions.	FHD
Inspects and advises on general sanitation matters, such as food safety and sewage disposal for impacted permitted food facilities, mass feeding centers, and temporary emergency shelters.	FHD
Conducts surveys to identify impacted public swimming pools that may pose a safety threat.	FHD
Assists building departments with the damage assessment of permitted multi-family dwelling units in areas where DEH is the housing authority.	FHD
Conducts foodborne and waterborne illness outbreak investigations in coordination with Health and Human Services Agency (HHSA).	FHD
Assist County Departments performing damage assessments with health and safety issues (e.g., personal protective equipment [PPE], mold, sampling, etc.).	CHD
Assist Department of General Services with County facilities (e.g., moisture mapping, mold, indoor air quality, decontamination)	CHD

#### **APPENDIX I-4**

### DEPARTMENT OF ENVIRONMENTAL HEALTH EMERGENCY ACTION CHECKLIST RESPONSE TO IMMINENT/ACTUAL DAM FAILURE

#### **Dam Failure Imminent**

Action	Responsibility
Coordinate actions necessary to mitigate potential sewage back-up caused by flood waters.	LWQD
Direct and advise on the use of chemical toilets and other temporary facilities for the disposal of human wastes.	LWQD
Provide guidance and inspect permitted food facilities, mass feeding centers, and emergency shelters.	FHD
Identify additional resources to handle increased vector control problems.	CHD
Enlist additional personnel to handle increased vector control problems.	CHD
Conduct surveys to determine adverse impact to facilities handling, storing, or disposing of hazardous materials.	HMD
Advise on mitigation, control, and clean-up measures involving hazardous material releases.	HMD
Dam Failure Occurs	
Coordinate survey to detect water and subsurface sewage system damage.	LWQD
Provide damage assessment of potable water sources and Provide guidance on the disinfection of water source prior to consumption.	LWQD
Direct and advise on the use of chemical toilets and other temporary facilities for the disposal of human wastes.	LWQD
Provide information on food, pool, and housing safety under emergency conditions.	FHD
Inspect and advise on general food safety, for impacted permitted food facilities, mass feeding centers, and temporary emergency shelters	FHD

Assist with conducting assessments of emergency shelters and advises on health and safety hazards related to food, sanitation, and housing.	FHD
Assist building departments with the damage assessment of permitted multi-family dwelling units in areas where DEH is the housing authority.	FHD
Conduct damage assessments to identify impacted public swimming pools that may pose an imminent safety threat.	FHD
Provide guidance to permitted food facilities, mass feeding centers, and emergency shelters that may be impacted by boil water orders, power outages, and water outages.	FHD
Provide information on the salvaging and protection of perishable foods under emergency conditions.	FHD
Cordon off areas where sewage effluent is present.	LWQD
Provide mosquito and other vector control.	CHD
Advise on mitigation, control, and clean-up measures.	DEH
Conduct surveys to determine adverse impact to facilities handling, storing, or disposing of hazardous materials.	HMD
Survey underground storage tank sites to determine if tanks have floated and if releases have occurred.	LWQD
Assess risk to public health and water resources from hazardous materials releases.	HMD/LWQD
Coordinate site assessment and mitigation activities with other public agencies and private entities.	LWQD
Assist County Departments performing damage assessments with health and safety issues (e.g., personal protective equipment [PPE], mold, sampling etc.)	CHD

# APPENDIX I-5 DEPARTMENT OF ENVIRONMENTAL HEALTH EMERGENCY ACTION CHECKLIST RESPONSE TO IMMINENT/ACTUAL FIRE

<u>Action</u>	Responsibility
Determine potential health hazards and establish standards for control.	DEH
Initiate actions to accommodate potential sewage releases caused by fire impacting collection, treatment, and disposal facilities.	LWQD
Direct and advise on the use of chemical toilets and other temporary facilities for the disposal of human wastes.	LWQD
Provide food safety guidance and inspection for mass feeding centers	FHD
Enlist additional personnel to handle increased vector control problems.	CHD
Identify buildings that contain hazardous materials.	HMD
Advise on mitigation and control measures. Take environmental samples to determine extent of contamination.	HMD
FIRE IMPACTS POPULATED AREAS	
Conduct field survey to detect damage to sewage collection and disposal systems.	LWQD
Provide damage assessment of potable water sources and provide guidance on the disinfection of water sources prior to consumption.	LWQD
Provide guidance drink ability of water in the area.	LWQD
Direct and advise on the use of chemical toilets and other temporary facilities for the disposal of human wastes.	LWQD

Provide information on food, pool, and housing safety under emergency conditions.	FHD
Inspect and advise on general food safety, for impacted permitted food facilities, mass feeding centers, and temporary emergency shelters.	FHD
Assist with conducting assessments of emergency shelters and advise on health and safety hazards related to food, pools, and housing.	FHD
Assist building departments with the damage assessment of permitted multi-family dwelling units in areas where DEH is the housing authority.	FHD
Conduct damage assessments to identify impacted public swimming pools that may pose an imminent safety threat.	FHD
Provide guidance to permitted food facilities, mass feeding centers, and emergency shelters that may be impacted by boil water orders, power outages, and water outages.	FHD/LWQD
Provide information on the salvaging and protection of perishable foods under emergency conditions.	FHD
Cordon off areas contaminated with sewage.	LWQD
Coordinate mosquito and other vector control operations.	CHD
Advise on mitigation control and clean-up measures.	HMD
Survey above and underground storage tank sites to determine if tanks have been impacted and if releases have occurred.	LWQD
Assess risk to public health and water resources from hazardous materials releases.	LWQD

Survey landfills and evaluate damage.	CHD
Survey transfer stations and evaluate damage.	CHD
Monitor the storage, handling and disposal of solid waste.	CHD
Assist County Departments performing damage assessments with health and safety issues (e.g., personal protective equipment [PPE], asbestos, lead, dust, air sampling etc.),	CHD
Assist Department of General Services with County facilities (e.g., indoor air quality, ventilation issues)	CHD

### DEPARTMENT OF ENVIRONMENTAL HEALTH EMERGENCY ACTION CHECKLIST RADIOLOGICAL INCIDENT

<u>Action</u>	Responsibility
Ensure that operations are conducted from an upwind position.	Senior Health Physicist (SHP)
Determine the magnitude of the incident and establish perimeter to prevent spread of contamination.	HMD/(SHP)
Identify spilled or leaked substance. This would include locating shipping papers and placards and contacting, as required.	HMD/(SHP)
Take necessary steps to protect or save human life.	HMD/(SHP)
Establish perimeter controls to keep the public a safe distance from the scene.	HMD/(SHP)
Identify radioactive element involved in incident. Evaluate the radiological component of the hazard.	HMD/(SHP)
Re-evaluate perimeters as the radioactive element is identified and/or environmental conditions change.	HMD/(SHP)
Assist medical personnel in identifying, isolating and removing contaminated or injured persons from the scene.	HMD/(SHP)
Take action to contain and/or prevent the spread of the material.	HMD/(SHP)
Ensure proper notifications have been made.	HMD/(SHP)
Recommend evacuation or shelter in place as appropriate.	HMD/(SHP)
Maintain radiological exposure records on all emergency personnel.	HMD/(SHP)
Coordinate clean-up activities of private radioactive materials companies with Radiological Health Branch (RHB)	HMD/(SHP)

Advise Public Information Officer of specific radiological HMD/(SHP) information that should be given to the public.

### DEPARTMENT OF ENVIRONMENTAL HEALTH RADIOLOGICAL PROTECTION

#### I. General

#### Introduction

This appendix establishes the basic operational concepts, responsibilities and techniques to support governmental efforts to save lives and minimize exposure to radiation in the event of a radioactive materials emergency. These emergencies may involve transportation accidents, industrial/medical facility accidents, Naval Nuclear Propulsion Program (NNPP) facilities or vessels\*, or an incident at the San Onofre Nuclear Generating Station.

The basic capabilities required for response to a radiological emergency are:

- A. Utilizing a radiation monitoring system to detect, measure and report radiation dose and exposure rates.
- B. Trained staff to receive, analyze, and evaluate information provided by the monitoring teams.

#### **Objectives**

- To establish organizational responsibilities and prescribe those actions required to provide timely and coordinated protective actions to minimize the loss of life and human suffering.
- 2. Provide a system for monitoring, reporting, processing and analyzing radiological data.
- 3. Provide technical support to implement radiological countermeasures and situation analysis.
- 4. Provide a system for receipt and dissemination of information required for effective response and recovery operations.
- 5. Provide a basis on which local jurisdictions can establish coordinated and supporting plans and Standard Operating Procedures (SOPs).

<sup>\*</sup> See Appendix II-3 for more specific information on NNPP facility and vessel response.

#### **Authorities and References**

- 1. Federal Radiological Emergency Response Plan.
- 2. California Emergency Services Act.
- 3. California Emergency Plan.
- 4. California Health and Safety Code
  - A. Control of Radioactive Contamination of the Environment (Division 20, Chapter 7, Sections 25600 25610).
  - B. Transportation of Radioactive Materials Division 20, Chapter 7.3, Sections 25650 25654).
  - C. Radiation Control Law (Division 20, Chapter 7.6, Sections 25800 25876).
- 5. California Administrative Code Title 17.
- 6. California Master Mutual Aid Agreement.
- 7. County of San Diego Emergency Services Ordinance No. 8183 dated December 15, 1992.
- 8. County of San Diego Resolution Adopting the California Master Mutual Aid Agreement, dated December 11, 1950.
- 9. NUREG 0654/Rep 1, Criteria for Preparation and Evaluation of Radiological Response Plans and Preparations in Support of Fixed Site Nuclear Power Plants.
- 10. NUREG 0610, Draft Emergency Action Level Guidelines for Nuclear Power Plants.
- 11. Agreement between the State of California and the Nuclear Regulatory Commission (NRC) pursuant to Section 274 of the Atomic Energy Act of 1954, as amended.
- 12. San Diego County Nuclear Power Station Emergency Response Plan
- 13. Commander Submarine Force U.S. Pacific Fleet Representative, West Coast Procedures for the Notification of the State of California in Support of the Radiological Emergency Plan for Naval Nuclear Propulsion Plants in the San Diego Area.
- 14. CPG 1-7 Guide for Increasing Local Government Civil Defense Readiness during Periods of International Crisis.
- 15. State of California Nuclear Blackmail Plan.

#### **Coordination with Other Jurisdictions and Agencies**

Although the response for radiological emergencies is addressed in various emergency plans, the basic policies and procedures for emergency operations remain unchanged from those used in response to other emergencies or disasters. In most cases, the responsibilities assigned in this annex fall within the normal purview of the organization(s) to which these assignments are made.

#### **II. Concept Of Operations**

Preparation for coping with a radiological emergency is a joint cooperative effort by local and state government, federal agencies and private organizations. Each organization or agency must define its role, prepare plans and procedures, train personnel, conduct exercises and develop and maintain the appropriate resources in order to ensure the capability to effectively coordinate with other agencies and to provide effective response to the emergency.

During the normal day-to-day operating mode, emphasis is placed on:

- 1. Developing plans, standard operating procedures (SOPs) and emergency checklists.
- 2. Training of Radiological Officers, Radiological Monitors and the Radiological Response Team. The Radiological Response Team for the San Diego County Operational Area is the Hazardous Incident Response Team (HIRT).
- 3. Identification of radiological threats or hazards.
- 4. Maintaining calibrated monitoring equipment.
- 5. Maintaining a supply of radiological survey instruments. This is accomplished by County OES and DEH.
- 6. Maintaining current list of facilities licensed to store and use radioactive materials.
- 7. Assist with isotope verification when a radiological source is detected by any responders (e.g. HIRT or the Small Vessel Project)
- 8. Developing and conducting drills and exercises for emergency personnel (both tabletop and functional exercises).

#### **Emergency Response Phase**

This phase begins with the threat of a release of radioactive material either from an incident at the San Onofre Nuclear Generating Station, a terrorist threat involving nuclear or radioactive materials, or other events such as major fires threatening facilities with large inventories of radioactive materials. Smaller incidents, such as those that may arise from transportation accidents, will usually be handled by DEH/HMD normal response procedures but may require full or partial implementation of this plan. Actions required during this phase may include:

- 1. Activating the Operational Area and local EOCs.
- 2. Reviewing/updating plans, SOPs and checklists.
- 3. Testing/inventory of equipment, supplies and facilities.
- 4. Distributing equipment to monitoring teams.
- 5. Dissemination of radiological protection guidance.
- 6. Providing radiological protection information to the public.
- 7. Assigning radiological monitors as necessary.

- 8. Activating medical care facilities, first aid stations, etc.
- 9. Activating emergency communications systems such as Radio Amateur Civil Emergency Service (RACES) and the Emergency Alert System (EAS).
- 10. Mobilization and pre-positioning of personnel and equipment.

#### **Recovery Phase**

#### **Early Recovery**

This phase continues the assessment of radiological hazards to determine if they are a threat to life or health. Detect exposure hazards, hazards from water sources and the food chain must be identified. Decontamination of critical facilities will be undertaken or coordinated.

#### **Final Recovery**

The objective is to restore the environment to a safe radiation level as quickly as possible. All areas will be carefully monitored to determine the degree of contamination with appropriate actions taken to reclaim such areas for human habitation and crop protection as soon as possible.

#### Activation

The Emergency Services Coordinator, or his/her designated representative (as outlined in the basic portion of Annex H), may direct this appendix be activated upon receiving information of an actual or potential radiological emergency in the Operational Area.

Upon activation, the Operational Area Radiological Officer (RO) will:

- 1. Receive, collate and assess data from the radiological monitoring teams.
- 2. Forward all radiological data, operational information and situation intelligence summaries to the Southern Regional State Operations Center (REOC).
- 3. Maintain dose and exposure records for emergency response personnel within the unincorporated area.
- 4. Ensure response personnel read their personal dosimetry equipment at appropriate intervals and in no case less frequently than once an hour.
- 5. Establish and maintain coordination with local government Radiological Officers, the Senior Radiological Health Physicist, and appropriate private agencies.
- 6. Advise senior decision-makers on the radiological situation.
- 7. Coordinate information with the Operational Area Public Information Officer (PIO) and the Joint Information Center (JIC).
- 8. Provide an Operational Area-wide overview of the radiological situation to officials and the public.

Radiological Monitoring Teams - Operate the radiological monitoring instruments and report the data. Each team consists of a minimum of two trained monitors.

- 1. Radiological monitors will be assigned as required.
- 2. Teams will assist or conduct the decontamination of personnel and property.

Emergency response personnel will not be permitted to receive radiation doses exceeding EPA protective action guides (PAGs) without the approval of the County Health Officer.

Emergency workers who may be exposed to high levels of radioactive iodine will be directed by the County Health Officer to take Potassium Iodide (KI). The purpose for administering KI is to limit the uptake of radioactive iodine by the thyroid. KI should not be issued to the general population since other methods will be employed to limit their dose.

Local Radiological Officers will perform those functions listed under the Operational Area Radiological Officer for their respective jurisdictions.

#### Deactivation

This Appendix will be deactivated at the discretion of the Emergency Services Coordinator or his/her designated representative.

#### III. Organization And Responsibilities

The Operational Area will respond to a radiological emergency as outlined in this plan and the Standard Operating Procedures (SOPs) for all-hazards emergency response. The San Diego County Nuclear Power Plant Emergency Response Plan (SDCNPPERP) will be used for events at the San Onofre Nuclear Generating Station.

#### **Local Governments**

The Emergency Services Director for each jurisdiction has ultimate responsibility for direction and control of that jurisdiction's response actions.

Each jurisdiction is responsible for:

- 1. Planning for the safety of employees and the protection of property in the event of a radiological emergency.
- 2. Coordinating plans and actions with other jurisdictions and agencies within the Operational Area.
- 3. Maintaining SOPs and call lists.
- 4. Training personnel assigned to emergency tasks.
- 5. Participating in drills and exercises.
- 6. Preparing damage and loss survey reports.

#### IV. Supporting Organizations And Responsibilities

#### **State Agencies**

- 1. California Emergency Management Agency (CALEMA)
  - A. Provide radiological training.
  - B. Organize and staff the State Dose Assessment Center.
  - C. Manage state radiological fallout and monitoring system.
  - D. Disseminate radiological intelligence.
  - E. Evaluate monitoring data and advise those concerned.
  - F. Act as liaison between Federal and local government.
  - G. Provide technical guidance.
  - H. Coordinate radiological recovery operations.
  - I. Coordinate state agency assistance to local governments.
  - J. Maintain the State Nuclear Power Plant Emergency Plan.
  - K. Monitor and evaluate data, then advise those concerned.
- 2. CALEMA Southern Region Staff
  - A. Function as an intermediate coordinating level (Regional EOC) between the Operational Area and the State Operations Center (SOC).
  - B. Compile and transmit operational information and situation intelligence summaries to the SOC and Operational Areas.
- 3. Other State agencies that have responsibilities during a radiological emergency response are:
  - A. Department of Public Health, Radiologic Health Branch
  - B. Emergency Medical Services Authority
  - C. California Highway Patrol
  - D. California Department of Transportation (CalTrans)
  - E. Department of Justice
  - F. Department of Forestry and Fire Protection (Cal Fire)
  - G. National Guard
  - H. Department of Fish and Game (DFG)

#### **Federal Agencies**

1. Federal Emergency Management Agency (FEMA): Coordinate Federal response actions and agencies.

2. Other Federal Agencies: May assist by providing support or services as requested by State or Local governments.

### RADIOLOGICAL PROTECTION FIXED NUCLEAR POWER STATION EMERGENCY RESPONSE PLAN

#### PURPOSE

To develop and maintain a response capability to adequately safeguard life and property in the event of an incident at the San Onofre Nuclear Generating Station (SONGS).

#### **CONCEPT OF OPERATIONS**

The nature of the threat posed by SONGS coupled with the requirements of NUREG 0654 and those imposed by the Inter-jurisdictional Planning Committee dictate that a separate plan for this emergency be developed and maintained. The current plan for such an emergency is the San Diego County Nuclear Power Plant Emergency Response Plan adopted February 1982. That plan by reference is made a part hereof.

### RADIOLOGICAL PROTECTION NUCLEAR TERRORIST EMERGENCY RESPONSE PLAN

#### **PURPOSE**

To develop and maintain a response capability to minimize the threat to public safety caused by a terrorist action involving nuclear weapons or radiological material.

#### **BACKGROUND**

#### General

Terrorist activities around the world continue to increase in sophistication. More ominously, terrorist attacks appear to be aimed towards maximizing damage and publicity rather than the accomplishment of political goals. When this is combined with the fact that weapons grade nuclear material is becoming increasingly more common, the possibility of a terrorist act involving radiological and lower grade radioactive material nuclear weapons also increases.

#### **Scenario**

The scenario for a nuclear threat could begin with the theft of radiological material that would pose a health threat. Federal, state or local governments may be notified of the presence of a nuclear weapon by the terrorist organization.

#### Credibility

The credibility of the threat would depend on knowledge of any previous theft of radiological material or nuclear weapon and any knowledge of the nature of the terrorist group. The most important information required is an assessment of the ability of the terrorists to successfully detonate the weapon or radiological dispersion device (RDD). The FBI, Department of Defense (DoD), DOE, and other federal agencies assisted by state and local law enforcement organizations would perform evaluation of the situation.

#### **CONCEPT OF OPERATIONS**

#### **Activation**

Upon receipt of information of a radiological threat by a terrorist group, the Emergency Services Coordinator, or his/her designated representative, may proclaim a Local Emergency for the San Diego County Operational Area and activate the Operational Area EOC. Once a Local Emergency is proclaimed the Emergency Services Coordinator may request the Proclamation of a State of Emergency from the Governor.

Upon activation of the Operational Area EOC, radiological resources within the Operational Area will be mobilized to respond to the threat. The CalEMA will be notified through the CalEMA Southern Region.

#### Deactivation

This Appendix will be deactivated at the discretion of the Emergency Services Coordinator or his/her designated representative.

#### Response

The nature of the response would depend on:

- A. Nature of the threat. It is possible that the terrorists may threaten to detonate the device if any public protective measures are taken.
- B. Size of the threatened population and the length of time available for evacuation.
- C. Size and type of weapon.

Protective measures may take two forms:

- A. Evacuation of the population at risk.
- B. Sheltering actions.

The situation will determine the best course of action. If the weapon is located in a heavily populated area and there is little time before the threatened detonation, evacuation may not be possible. In this case, protective, sheltering actions would be called for.

#### **Effects of Detonation**

The overall impact of the detonation of a single nuclear or RDD device would be devastating to the immediate area. However, the infrastructure of the Operational Area would remain intact, allowing for rapid rescue and decontamination actions.

All responders entering the Exclusion Zone around the blast area are to wear respiratory protection to protect themselves from airborne particles. This can include but is not limited to SCBA, CBRN certified respirators or even N95 rated Air Purifying Respirators.

Responders need to take appropriate protective actions by adhering to the principles of time, distance and shielding. Personal monitors should be used to measure their exposure to the radiation for the duration of the responses using appropriate equipment. Exposure to radiation should be maintained at less than 10 REM for the duration of the incident unless life saving efforts are underway. Then a one time maximum exposure level of 50 REM can be taken provided the responders are trained, not pregnant, and voluntarily responding according to the specific exposure level above.

While the immediate response actions would center around rescue and decontamination operations, equally important will be those activities aimed at preventing contamination of the water or food chain in outlying areas. Long range responses will include long term medical care and screening of survivors and emergency response personnel who have received exposure to radiation.

These activities may/will require federal and state resources.

# RADIOLOGICAL PROTECTION RADIOLOGICAL EMERGENCY ONBOARD A NAVAL NUCLEAR PROPULSION PROGRAM FACILITY OR VESSEL IN SAN DIEGO (Unclassified Protocols)

#### **PURPOSE**

This document provides information about the Naval Nuclear Propulsion Program (NNPP) facilities and vessels located in the County of San Diego. It provides ready reference for NNPP related radiological emergencies that could occur at NNPP radiological work facilities, on nuclear powered vessels, or off-site transportation accidents that might have an impact on the public health and safety of San Diego citizens.

#### **BACKGROUND**

#### General

Although the likelihood of a radiological emergency occurring in NNPP facilities or vessels is extremely remote, prudence dictates that provisions be made to deal with such an occurrence. At any given time there may be one or more nuclear powered aircraft carriers or submarines inport in San Diego.

It is the policy of the NNPP to ensure that state or local officials are notified of occurrences that might cause concern. Such occurrences will not necessarily be classified as unusual events, alerts or emergencies.

#### **Naval Nuclear Propulsion Program Areas of Planning Attention**

Emergency Planning Zones (EPZs) established by NUREG-0654/FEMA-REP-1 are not applicable to naval nuclear propulsion plants. Because of differences in the design and operation of naval nuclear propulsion plants when compared to commercial nuclear power plants, the exposure to the public would be localized and not severe in the highly unlikely event of a release of radioactivity from a vessel. To assist State and local authorities in assessing the need for any preplanning in the vicinity of naval facilities where nuclear-powered vessels are berthed, the NNPP has designated Areas of Planning Attention (APAs). The APAs extend 0.5-mile around every location where nuclear powered vessels are normally berthed (i.e., from the actual dock or pier—not the Federal Property Boundary). The 0.5-mile distance is based on detailed, conservative analysis of worst-case and highly unlikely, but credible scenarios—the actual radius of the impacted downwind area will most likely be smaller.

For Naval Base Point Loma and Naval Air Station North Island, the APAs do not extend onto public land areas outside the Federal Property Boundary. (See maps attached as Figures 1 through 3 of this Appendix) State and local government officials are responsible for making Protective Action Decisions and implementing appropriate protective measures to protect persons within their jurisdictions, but outside of the affected facility Federal Property Boundary.

#### **Classification/Emergency Action Levels**

The NNPP uses the four classes of Emergency Action Levels (EALs) specified in NUREG-0654/FEMA-REP-1. While the NNPP uses the same four classes as commercial nuclear power plants, the NNPP's methodology for establishing the EALs is different. The Nuclear Regulatory Commission (NRC) and Federal Emergency Management Agency (FEMA) guidance for establishing EALs contained in NUREG-0654/FEMA-REP-1 is primarily based on plant or site conditions (e.g., loss of offsite power, loss of one or more fission product barriers). Because of the differences in the design and operation of NNPP nuclear propulsion plants, the NRC/FEMA guidance is not applicable to NNPP nuclear propulsion plants.

The NNPP EALs are normally classified based on a conservative estimate of total radiation exposure to a hypothetical member of the public located near the Federal Property Boundary (or nearest downwind public location not on Federal Property) in terms of dose to the whole body (i.e., Total Effective Dose Equivalent (TEDE)) or dose to the thyroid (Committed Dose Equivalent (CDE)) during the plume phase. The NNPP used the Protective Action Guides (PAGs) specified by the Environmental Protection Agency (EPA), in EPA 400-R-92-001 of October 1991, to establish the General Emergency threshold doses (1 Rem TEDE, 5 Rem CDE thyroid). The dose thresholds for the lower tier event classes (Site Emergency, Alert, and Unusual Event) were then established using fractions of the EPA PAGs.

Event Classification*	Radiation Dose*	Radioiodine Dose*
Unusual Event	<0.01 Rem	<0.05 Rem
Alert	>0.01 to <0.1 Rem	>0.05 to <0.5 Rem
Site Emergency	>0.1 to <1.0 Rem	>0.5 to <5.0 Rem
General Emergency	>1.0 Rem	>5.0 Rem

<sup>\*</sup>Normally based on exposure levels of a hypothetical person located at the Federal Property Boundary or the nearest downwind public location not on Federal Property.

The dose estimates are made using actual field survey data taken near the Federal Property Boundary and a two-hour release is assumed if the duration of the release is unknown. Since field survey data will not be immediately available, the NNPP will normally assign an event classification of "Alert" if an event involves actual or potential for reactor core damage and there is an actual or potential for a release of radioactivity to the environment. An event that involves the actual or potential degradation of the level of safety of the plant will be initially classified as an "Alert". Based on detailed, conservative analysis of worst-case and highly unlikely, but credible scenarios, NNPP events are not expected to exceed an "Alert" event category. No action by civil authorities or the public is required for these events.

An initial event classification of "Unusual Event" will be normally assigned if a reactor core is not involved (e.g., facility fire involving radioactive materials), and a release of radioactivity to the environment has occurred with potential for measurable dose to a hypothetical member of the public near the Federal Property Boundary. Classification levels do not apply to radiologically insignificant discharges, such as valve leakage or process piping joint leakage, involving a small volume of liquid into a large body of water. Other Navy reporting processes will report this type of discharge to the appropriate civil officials at the time of the event if warranted.

#### **Class: UNUSUAL EVENT**

Description: Unusual events are in progress, or have occurred, which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response are expected unless further degradation of safety systems occurs. If minor releases of radioactivity off-site do occur, releases are expected to result in whole body radiation exposures of <0.01 REM or thyroid exposures of <0.05 REM at the Federal Property Boundary (or nearest downwind public location not on Federal Property).

#### Class: ALERT

Description: Events are in progress, or have occurred, which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA PAG exposure levels near the Federal Property Boundary (or nearest downwind public location not on Federal Property). Radioactivity releases are expected to result in whole body radiation exposures of >0.01 to <0.10 REM or thyroid exposures of >0.05 to <0.50 REM at the Federal Property Boundary (or nearest downwind public location not on Federal Property).

#### Class: SITE EMERGENCY

Description: Events are in progress, or have occurred, which involve actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to exceed EPA PAG exposure levels beyond the Federal Property Boundary. Releases are expected to result in whole body radiation exposures of >0.1 to <1.0 Rem or thyroid exposures of >0.5 to <5 Rem at the Federal Property Boundary.

#### Class: GENERAL EMERGENCY

Description: Events are in progress, or have occurred, which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be expected to exceed EPA PAG exposure levels near the Federal Property Boundary. Releases are expected to result in whole body radiation exposures >1.0 REM or thyroid exposures of >5.0 REM at the Federal Property Boundary.

#### Recovery, Relocation, and Re-entry

The Recovery, Relocation and Re-entry Phase will begin when the NNPP Emergency Control Center terminates the Alert, Site Emergency or General Emergency Phase or when events at the site have been downgraded and conditions stabilized. Off-site radiological monitoring, assessment, and environmental sampling will be continued until terminated by the State Radiation Safety Officer and State Dose Assessment Center (SDAC) officials or when missions have been completed. State and local government officials will continue to take actions deemed necessary to provide for the safety and economic well being of the population and to return impacted areas to normalcy.

#### **CONCEPT OF OPERATIONS**

#### Notification

Area Commanders of NNPP facilities use a two-tiered approach for accident notification. The Area Commander (Commander Submarine Force, U.S. Pacific Fleet Representative West Coast (COMSUBPACREP West Coast)) will immediately notify State and local officials via a Heads-Up phone call whenever any of the four levels of radiological emergencies occur. The Heads-Up phone call is executed within 10 minutes of manning the NNPP Area Commander Emergency Control Center via established notification procedures using the following precedence: the affected city, the non-affected city, the County of San Diego, and the State of California. During the Heads-Up notification call, the NNPP Area Commander will request the above agencies to dial into a conference circuit to provide updated information and coordinate response efforts. The NNPP Area Commander will then provide each agency a formal written notification within approximately 30 minutes after the Emergency Control Center is staffed using the NNPP Civil Authority Notification Form.

For more information on response to a Naval Nuclear Propulsion Program radiological emergency, refer to the State of California Naval Nuclear Propulsion Program Facilities and Vessels. Naval Nuclear Propulsion Program Facilities and Vessels is a supporting document to the California Radiological Emergency Preparedness (CalREP) Plan that provides information about NNPP facilities and vessels for ready reference to NNPP related radiological emergencies.

#### Specific Response Actions

This document and the Operational Area EOC Standard Operating Procedures (SOPs) for all-hazards emergency response including the San Diego Operational Area Hazardous Materials Incident Response Team Standard Operating Guidelines will guide the Operational Area's response to an event involving a NNPP facility or vessel. The standard notification procedure contained in the EOC SOPs will be instituted when activating this appendix.

Upon verification of an Unusual Event, the County OES Staff Duty Officer (SDO) will notify the Director, County OES and the other operations officers, as appropriate. County OES will coordinate with the cities of Coronado and San Diego, or others as necessary.

Upon verification of an Alert, the Operational Area EOC will be partially activated in accordance with the EOC SOPs. The following actions should be given priority.

Notify the City of San Diego Fire Communications Center. Request that Hazardous Incident Response Team (HIRT) Radiological Monitoring teams be mobilized. Specific response locations will be provided at the time of the notification since events may vary.

Notify the City of Oceanside and request the Radiological Monitoring (RadMon) Teams be placed on standby. If the situation warrants, the RadMon teams may be requested to stage at the Operational Area EOC to facilitate their use in a timely manner.

Notify the cities of Coronado (Police/Fire Communications) and San Diego, or others as necessary.

Notify the County Health Officer and the Department of Environmental Health and request the County Health Officer and Health Physicist report to the Operational Area EOC.

All other notifications will be made in accordance with the standard notification procedure contained in the SOPs.

Upon verification of a Site Emergency or General Emergency the Operational Area EOC will be fully activated in accordance with the SOPs.

#### **Activation**

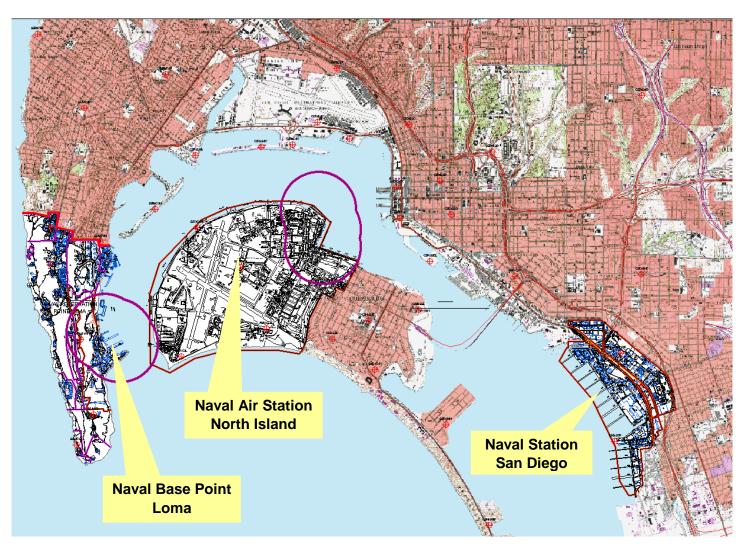
This appendix shall be activated by the Emergency Services Coordinator, his/her designated representative, or the County OES Director, whenever the County has verified an incident onboard a NNPP facility or vessel which has a classification of Alert or higher.

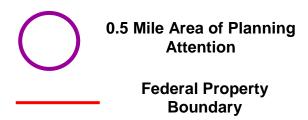
If the County OES SDO believes the situation requires it, he/she may begin notification prior to receiving authorization to activate the Operational Area EOC.

#### **Deactivation**

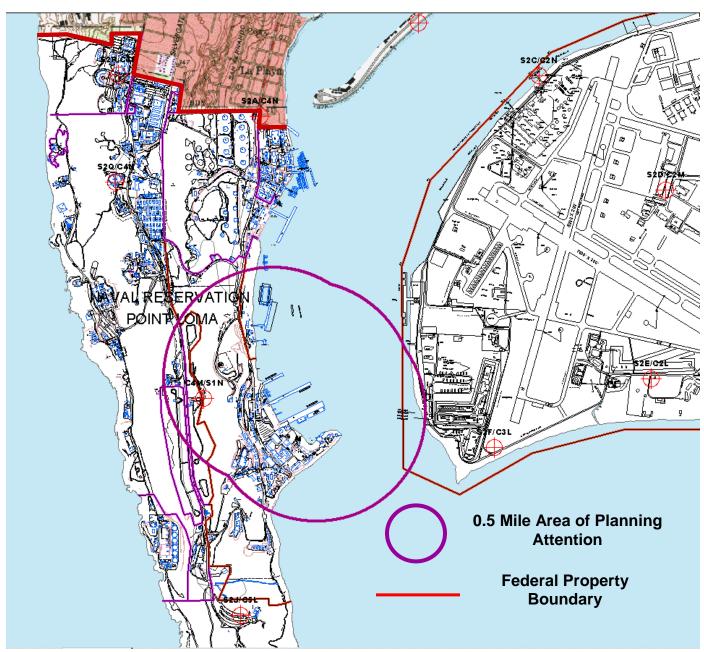
This appendix shall be deactivated when the NNPP Emergency Control Center terminates the Event Category or when events at the site have been downgraded and conditions stabilized. Off-site radiological monitoring, assessment, and environmental sampling will be continued until terminated by the State's Radiological Health Branch and SDAC officials or when missions have been completed. State and local government officials will continue to take actions deemed necessary to provide for the safety and economic well being of the population and to return impacted areas to normalcy.

#### Annex H, Appendix II-3 - Figure 1 Naval Nuclear Propulsion Program San Diego Areas of Planning Attention



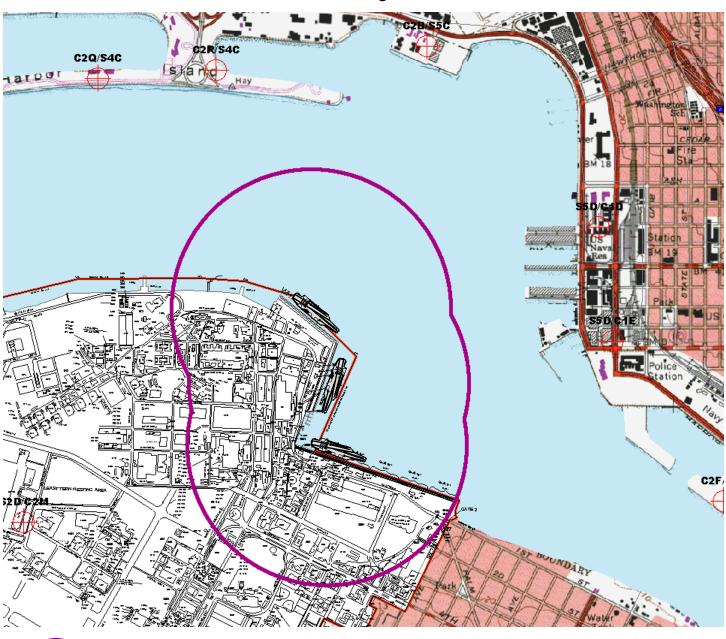


#### Annex H, Appendix II-3 - Figure 2 Naval Nuclear Propulsion Program Naval Base Point Loma, CA Area of Planning Attention



Limiting Distance to Federal Property Boundary North Pier – 1.12 miles

#### Annex H, Appendix II-3 - Figure 3 Naval Nuclear Propulsion Program Naval Air Station North Island, CA Area of Planning Attention



0.5 Mile Area of Planning Attention

> Federal Property Boundary

Limiting Distance to Federal Property
Boundary
LM Berth – 0.5 Miles

## RADIOLOGICAL PROTECTION EMERGENCY ACTION CHECKLIST FOR RADIOLOGICAL RESPONSE MAJOR EARTHQUAKE

<u>Action</u> <u>Responsibility</u>

If little/no damage reported, prepare to support and assist more heavily damaged jurisdictions.

Director, OES

If extensive damage reported, take the following actions:

Verify reports. OES SDO

Determine if any damage reports involve radiological All Radiological Officers

material.

Alert radiological monitoring personnel of any reported All Radiological Officers radiological incidents.

Dispatch monitor team(s) to survey and report damage. All Radiological Officers

Provide protective actions as required for each incident. All Radiological Officers

Ensure radiological exposure records properly maintained All Radiological Officers for RadMon personnel.

Keep responders informed of areas threatened by All Radiological Officers radiological hazards.

Determine current and forecasted wind conditions and predict the winds affect on dispersion of radioactive particles.

All Radiological Officers

Ensure priority given to life-saving actions. Incident Commander

Establish safe access controls to damaged/contaminated Incident Commander areas and assist people to safe areas.

Recommend evacuation, if necessary.

All Radiological Officers

Obtain transportation, supplies and equipment needed for All Radiological Officers response teams.

Provide radiation monitors for areas without qualified All Radiological Officers personnel.

## RADIOLOGICAL PROTECTION EMERGENCY ACTION CHECKLIST FOR RADIOLOGICAL RESPONSE HAZARDOUS MATERIALS INCIDENT

Action	Responsibility
Ensure that operations are conducted from an upwind position.	Incident Commander
Determine the magnitude of the incident and establish perimeter to prevent spread of contamination.	Incident Commander
Identify spilled or leaked substance. This would include locating shipping papers and placards.	Incident Commander
Take steps necessary to protect or save human life.	Incident Commander
Establish perimeter controls to keep the public a safe distance from the scene.	Incident Commander
Assure all responders within Exclusion Zone are wearing appropriate Respiratory Protection if airborne particulate release	Incident Commander
Reevaluate perimeters as the radioactive element is identified and/or environmental conditions change.	All Radiological Officers
Assist medical personnel in identifying, isolating and removing contaminated or injured persons from the scene.	RadMon Team
Take action to contain and/or prevent the spread of the material.	Incident Commander
Ensure OES has been notified.	Incident Commander
Recommend evacuation, if necessary.	All Radiological Officers
Maintain radiological exposure records on all personnel.	All Radiological Officers
Coordinate clean-up activities of private radioactive materials companies with RHB.	All Radiological Officers
Advise Public Information Officer and JIC of specific radiological information that should be given to the public.	Incident Commander/Radiological Officers

## RADIOLOGICAL PROTECTION EMERGENCY ACTION CHECKLIST FOR RADIOLOGICAL RESPONSE IMMINENT/ACTUAL FLOODING

#### **Flooding Expected**

<u>Action</u>	Responsibility
Establish liaison with EOC and provide technical support.	All Radiological Officers
Prepare to relocate radiological equipment from flood plain.	All Radiological Officers
Provide monitoring support for flood fighting activities.	All Radiological Officers
Contact Radiological Health Branch to ascertain if any licensed facility has problems requiring attention.	Op Area Radiological Officers
Stand by to provide support as the situation develops.	All Radiological Officers
Provide advice to licensees on how to protect their facilities.	All Radiological Officers
Flooding Occurs	
Provide monitoring support for rescue operations if required.	All Radiological Officers
Provide support on damage assessment teams.	All Radiological Officers
Report situation and support requirements to REOC Southern Region via Operational Area EOC.	All Radiological Officers

## RADIOLOGICAL PROTECTION EMERGENCY ACTION CHECKLIST FOR RADIOLOGICAL RESPONSE IMMINENT/ACTUAL DAM FAILURE

#### **Dam Failure Imminent**

<u>Action</u>	Responsibility
Prepare to relocate any radiological equipment in inundation areas.	All Radiological Officers
Provide monitoring support, if needed, to workers in inundation areas.	All Radiological Officers
Establish liaison with, and provide technical support to, the EOC.	All Radiological Officers
Provide advice to licensees on how to protect their facilities and secure their material.	All Radiological Officers
Stand by to provide support as the situation develops.	All Radiological Officers
Dam Failure Occurs	
Stand by to provide support:	All Radiological Officers
Monitoring for rescue operations	All Radiological Officers
Support for damage assessment teams	All Radiological Officers
Report on situation and requirements to REOC Southern Region via Operational Area EOC.	All Radiological Officers